

BUTTERFLIES OF THE MONTPELLIER REGION OF SOUTHERN FRANCE

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This paper lists the butterflies seen to the North of the city of Montpellier in Southern France during the month of July. The region covered lies mostly within the Département of Hérault, but the adjoining Départements of Gard, Aveyron and Lozère were also briefly visited. This part of France is of interest because of the wide range of terrain that is easily accessible and for the fact that, apart from the coastal strip, the land is not heavily populated. This means that considerable areas of natural land are still to be found.

Montpellier lies some 10km. from the Mediterranean sea. Inland from the city the countryside is dry in summer, well suited to the growth of vines, which are found widely in the area. The soil is calcareous, and the natural vegetation is scrub land known as "la garrigue". Typical plants consist of many fragrant herbs, such as thyme and lavender, among small oak and juniper trees. The land elevation varies from sea-level to about 300m. As representative of the region we report here on the butterflies found in the neighbourhood of Pic St. Loup, a well known landmark to the North of the city in typical garrigue.

Further inland and to the Northwest high limestone plateaus occur, known as "causses". These are 700-1100m. elevation and have a harsh climate, being cold in winter and hot in summer. The land is largely grazed grassland and includes a wide variety of limestone-loving plants. The region chosen as typical of this type of terrain was the Causse du Larzac, at the Southern end of the Département of Aveyron.

Due North of Montpellier lie the mountains of the Cévennes. These are granitic in nature and rise to well over 1500m. One considerable peak, Mont Aigoual, at 1567m. is easily reached from Montpellier, and lies on the border between the Départements of Gard and Lozère. The middle altitudes in the Cévennes are thickly forested with chestnuts, but the upper slopes are open grasslands. In the notes below we record the butterfly species found on these upper slopes in the Aigoual massif.

The regions described above were visited in July 1981 and 1984. Lists of butterflies seen on these three types of terrain were made. The records are most complete for the Pic. St. Loup region; the Causse du Larzac and the Aigoual massif being visited on fewer occasions. No special localities were sought out and so the list of species noted is representative of those readily observed. It is certain to be incomplete and in this respect it is noted that the HesperIIDae are not included.

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No accounts of the butterflies of this exact region have been found in the literature, but the references contain a short list of recent reports of butterfly populations of neighbouring areas which in part overlap the area under consideration here. In particular, the Cévennes National Park has been documented recently and these records are of most interest.

Species and Notes

Satyridae

Melanargia galathea lachesis Hubner: widely distributed in the Pic St. Loup area at low altitudes. On the wing from the end of the first week in July.

Melanargia galathea galathea L: widely distributed at high altitudes, 700m. or more, on the plateau du Larzac and the Aigoual massif. On the wing during mid- to end July.

Note: the distributions of these two forms is marked. All those found at high altitude were of the typical *galathea* form while those in the low altitude "garrigue" were of the *lachesis* form. No intermediate populations were found.

Hipparchia fagi Scop: widely distributed from Mont Aigoual to Montpellier, from the middle of July onwards.

Hipparchia semele L: widely distributed from Mont Aigoual to Montpellier during July.

Neohipparchia statilinus Hufn: only found in one locality near Pic St. Loup at the very end of July. Essentially an August butterfly.

Pseudotergumia fidia L: rather local in the Pic St. Loup area, from 20th. July on.

Chazara briseis L: widely distributed in the Pic St. Loup area; also found in one locality on the Causse du Larzac, from mid-July on.

Satyrus actaea Esper: found in three localities in the Pic St. Loup area in the latter half of July.

Minois dryas Hubner: males only found near Pic St. Loup, at the very end of July.

Brintesia circe D. & S.: widely distributed to the North of Montpellier throughout July.

Arethusana arethusa D. & S.: found in three locations near Pic St. Loup at the end of July. Essentially an August butterfly.

Erebia epiphron Knoch: found in the Aigoual massif at the end of July.

Erebia meolans de Prunner: found in the Aigoual massif at the end of July.

Maniola jurtina L: widely distributed in all localities visited during July.

Hyponephele lycaon Kuhn: found only in one locality near Pic. St. Loup; could be confused with *M. jurtina* on the wing.

Aphantopus hyperantus L: seen in only one locality on the Plateau du Larzac, 30th. July.

Pyronia tithonus L: seen on the plateau du Larzac, mid- to end July. Seems to be replaced at lower altitudes by the following two species.

Pyronia bathseba F: widely distributed in the Pic St. Loup area at the beginning of July. This species is always on the wing before the following one.

Pyronia cecilia Vallantin: widely distributed to the North of Montpellier throughout July; seems to follow on from the previous species, but there is a little overlap..

Coenonympha pamphilus L: widely distributed in the Pic St. Loup area from mid-July on; Mont Aigoual at the end of July. This species appears later than the following one.

Coenonympha dorus Esper: widely distributed in the Pic St. Loup area from the beginning of July, preceding the previous species by two weeks or more at the start of the emergence.

Coenonympha arcania L: seen on the Aigoual massif and the Causse du Larzac in the latter half of July. Seems to favour higher altitudes compared to the two previous species.

Pararge aegeria aegeria L: found in one location near Pic St. Loup and one location at Mont Aigoual, at the end of July.

Lassiomata megera L: common but never abundant near Pic St. Loup during the whole of the month.

Nymphalidae

Limenitis reducta Staudinger: widely distributed in the Pic St. Loup area in the latter part of July; also found in one locality on the Plateau du Larzac.

Nymphalis antiopa L: seen only in the Aigoual massif at the very end of July.

Inachis io L: found only in the Aigoual massif and on the Plateau du Larzac. This may be due to the fact that the food plant, Nettles, were not found in the low altitude regions visited.

Cynthia cardui L: noted only twice, once near Pic St. Loup on 13th. July and once in the Aigoual massif at the end of the month.

Argynnis paphia L: found as only two isolated individuals in the Montpellier region, but common in a number of localities on the Plateau du Larzac from the middle of the month.

Mesoacidalia aglaja L: one only seen near Pic St. Loup, 22nd. July.

Fabriciana adippe adippe D. & S.: two very worn examples seen near Pic St. Loup.

Fabriciana niobe L: one specimen noted on the Plateau du Larzac and two near Pic St. Loup in the middle of the month.

Issoria lathonia L: one seen on the Plateau du Larzac and one in the Aigoual massif, both towards the end of the month.

Brenthis daphne D. & S.: found on the Plateau du Larzac and the Aigoual massif in the latter part of the month.

Brenthis ino Rott.: noted on the Plateau du Larzac towards the end of July.

Clossiana selene D. & S.: one example seen in the Aigoual massif, 24th July.

Clossiana titania Esper: one only seen in the Aigoual massif at the very end of the month.

Melitaea cinxia L: widely distributed in the Pic St. Loup area, emergence starting towards the end of the month.

Melitaea phoebe D. & S.: found sparingly in the Pic St. Loup region and on the Plateau du Larzac.

Melitaea didyma Esper: widely distributed; found in all three localities, but never in large concentrations.

Melitaea diamina Lang: found once in the Aigoual massif, 24th. July.

Mellicta athalia Rott: noted on the Aigoual massif in the latter part of the month.

Mellicta parthenoides Keferstein: found on the Plateau du Larzac and on the Aigoual massif in the second half of July.

Libytheidae

Libythea celtis Laicharting: this very elusive butterfly was seen only twice in the Pic St. Loup region.

Lycaenidae

Quercusia quercus L: widely distributed in the Pic St. Loup area during the whole of July; also on the Plateau du Larzac in the latter half of the month.

Nordmannia acaciae F: found only on the Plateau du Larzac in mid-July.

Nordmannia ilicis Esper: found with the last species on the Plateau du Larzac.

Nordmannia esculi Hubner: very common in the Pic St. Loup area during the whole of July; also noted on the Aigoual massif at the end of the month.

Strymonidia spini D. & S.: found on the Plateau du Larzac in mid-July.

Strymonidia w-album D. & S.: found on the Plateau du Larzac together with the last species, mid-July.

Lycaena phlaeas L: widely distributed in all regions visited throughout the month.

Heodes virgaureae L: freshly emerged males seen on the Aigoual massif at the end of July; no females noted.

Heodes alciphron Rott: a few specimens found on the Aigoual massif at the end of July; this species clearly precedes the former in this locality.

Lampides boeticus L: found at only one locality on the Plateau du Larzac, at the end of the month.

Celastrina argiolus L: found in the Pic St. Loup area and on the Plateau du Larzac in mid-July, but not in large numbers.

Pseudophilotes baton baton Bergstrasser: occurs in the Pic St. Loup region from mid- to end July; not found at higher altitudes.

Plebejus argus L: seen in the Aigoual massif and on the Plateau du Larzac towards the end of July; not seen at lower altitudes.

Lycaeides idas L: Found only on the Aigoual massif at the end of July.

Aricia agestis agestis D. & S.: widely distributed in the Pic St. Loup area during July.

Agrodiaetus thersites Cantener: widely distributed in the Pic St. Loup area; found in one location on the Plateau du Larzac, mid- to end- July.

Agrodiaetus escheri Hubner: found on the Plateau du Larzac, mid- to end July.

Plebicula dorylas D. & S.: seen at only one locality on the Plateau du Larzac, 18th. July.

Lysandra coridon Poda: very common indeed in the Pic St. Loup region during the latter half of the month.

Meleageria daphnis D. & S.: seen in only one locality near Pic St. Loup in the middle of July.

Polyommatus icarus Rott: common in both the Pic St. Loup area and on the Plateau du Larzac, mid- to end July.

Papilionidae

Papilio machaon L: seen only as isolated individuals in the Pic St. Loup area towards the end of the month.

Iphiclides podalirius L: widely distributed in the Pic St. Loup area and frequently seen throughout the whole of July.

Zerinthia rumina L: only one female seen at the beginning of July near Pic St. Loup; very late for this species.

Parnassius apollo L: seen on the Aigoual massif at the very end of July.

Pieridae

Pieris brassicae L: seen in the Pic St. Loup region at the end of July.

Aporia crataegi L: found sparingly on the Aigoual massif, end of July.

Artogeia rapae L: widely distributed from the middle of the month.

Artogeia mannii Mayer: found in only one locality in the Pic St. Loup region, together with the previous species.

Artogeia napi L: widely distributed from the Pic St. Loup area to Mont Aigoual.

Pontia daplidice L: found only on a few occasions in the Pic St. Loup region.

Colias crocea Geoffroy: widely distributed, from Montpellier to Mont Aigoual, but never in large numbers.

Colias australis Verity: frequently seen as isolated individuals, in the Pic St. Loup region from mid-July onwards. All specimens examined in detail appeared to be *C. australis* but there is the possibility that *C. hyale* L. was also present.

Gonepteryx rhamni L: seen near to Montpellier at the very beginning of July; appears to precede the following species.

Gonepteryx cleopatra L: common from the Pic St. Loup area to the Aigoual region, including the Plateau du Laezac.

Leptidea sinapis L: widely distributed and often found in large numbers in the Pic St. Loup region; also seen on one occasion on the Plateau du Larzac.

References

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SYNANTHEDON CULICIFORMIS (LEPIDOPTERA : SESIIDAE) IN MID-PERTHSHIRE.—The Sesiidae appear to be poorly represented in Scotland and so every opportunity must be taken to define accurately the distribution of the few species present. Baker (1985: **MBGBI** Vol. 2) records *Synanthedon culiciformis* (Linn.) from only three Scottish vice-counties, namely Kincardineshire (VC91), South Aberdeenshire (VC92) and East Inverness-shire (VC96). To these we can now add a fourth, namely Mid-Perthshire (VC88). This addition is based on four records:—

- 1) An imago of the yellow-banded form (ab. *flavocingulata* Spuler) taken on the course of the old railway in Glen Dochart (O.S. Grid Ref. NN4527) on 15.vi.1985 by Kenn Watt.
- 2) An exuvium found protruding from a birch trunk in Meggernie Pinewood SSSI, Glen Lyon (O.S.Grid Ref. NN5545) on 16.vi. 1985 by Keith Bland.
- 3) An imago of the typical form taken at Dall, Rannoch (O.S. Grid Ref. NN5956) pre-1983 and now in the Rannoch School Collection (c/o Dr. R. Paul).
- 4) An imago of the typical form seen at rest at Kinloch Rannoch (O.S.Grid Ref. NN6558) on 1.vii.1976 by Richard Lyszkowski.

We feel that this catalogue adequately confirms the continued presence of *S. culiciformis* in Mid-Perthshire. K. P. BLAND, 35 Charterhall Road, Edinburgh EH9 3HS and K. R. WATT, Natural History Museum, Zoology Department, University of Aberdeen, Aberdeen AB9 2TN.